Russian Aeronautics 2010 vol.53 N1, pages 45-50

Influence of the open end geometry on resonance oscillations of a gas in a tube

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Abstract

Resonance oscillations of a gas in an open-ended tube of different geometry are investigated. The calculation is made by means of a one-parametric model using the experimental data for a pointed end and flanged ends. The distributions of the absolute values for dimensionless amplitudes of gas velocity and pressure variations along the tube are presented. The theoretical calculations are compared with the experimental results. © 2010 Allerton Press, Inc.

http://dx.doi.org/10.3103/S1068799810010071

Keywords

Flange, Oscillations, Pressure, Resonance, Velocity